

## Abstract of the Disclosure

In an apparatus and method for dispersively processing an IP packet forwarding for supporting a quality of service(QoS),  
5 an IP forwarding information base gotten by processing and extracting a routing protocol is dispersed to all input ports of a router on the basis of the QoS in a private network processor for performing a routing protocol process function, so as to dispersively process the IP packet forwarding. The  
10 method for dispersively processing the IP packet forwarding for supporting the QoS includes the steps of: a) classifying reception IP packets according to the QoS and storing them at an input-side class queue; b) searching the forwarding information base by using an exact matching table and an LPM  
15 (Longest Prefix Matching) search table according to an IP header value of the IP packet stored at the input-side class queue, and gaining forwarding information; c) transferring the IP packet according to the gained forwarding information; d) classifying the transferred IP packets according to the QoS,  
20 and storing them at an output-side class queue; and e) outputting the IP packet stored at the output-side class queue according to the QoS, whereby being used in the IP packet forwarding dispersion processing apparatus for supporting the quality of service, etc.